CERCLA SITE PRIORITIZATION REPORT
THE B.F. GOODRICH COMPANY
ILD#980606784

THE SITE

The B.F. Goodrich Company (ILD#980606784) is an active, polyvinyl chloride (PVC) chemical manufacturing facility located in Henry, Illinois in Marshall County. The B.F. Goodrich plant was constructed in 1958, on a bluff immediately adjacent to the Illinois River, one mile north of the City of Henry. Plant operations began in 1959 and remain active to date. The plant structures, active areas, formerly active areas and additional property occupy approximately 260 acres of land at this location. The process area occupies about 55 acres of this total. Prior to B.F. Goodrich's establishment this particular parcel of land was entirely agricultural land. Site operations consist of manufacture of PVC and accelerators for use in rubber vulcanizing. A few of the approximately 100 chemicals used in the manufacture of PVC and accelerators include biphenyl amines, acetone, benzene, phosphorus, trichloride, chloroacetic acid, phenol, diamine, acetonitrile, sulfuric acid, bleach, chlorine, hydrochloric acid, cyclohexane, butylamine, tetrahydrofuran, isopropanol solution and iso-octane. North of the process area and east between the process area and the edge of the river bluff are seven former wastewater treatment sludge and PVC process waste sludge lagoons. Three lagoons are located east of the process area the remaining four are north. The three lagoons to the east were the first to be taken out of service and closed. This occurred in the late 1970's and early 1980's. The other lagoons were closed by the mid 1980's. All lagoons had final cover and caps placed over them in 1987. A small landfill was also located northeast of the process area. Demolition and construction debris and small metal and cardboard containers were noted to be placed in this fill area in the early 1970's. This area was also utilized to burn the items mentioned. The landfill was closed prior to the lagoon closures but covered at the same time as lagoon covering and capping. Cover material over the lagoons and landfill area ranges from three to four feet in thickness.

The specific location of the B.F. Goodrich site is in the central south 1/2 of Sec. 3, T. 13N.- R. 10E. in Marshall County. Bordering the 260 acre site to the east is the Illinois River, to the west and northwest is agricultural fields, to the north is B.F. Goodrich's recreational facility

including two buildings, beyond which is a privately owned duck club and the Illinois River and to the south are the Chicago, Rock Island and Pacific Railroad tracks across which is the plant access road and a former private residence, now vacant. A total of six residences are located within one-half mile of the site boundaries, all to the northwest.

INVESTIGATIVE ACTIVITIES

RCRA inspections at the site began as early as 1973 with quarterly site inspections. CERCLA investigative activities began as a result of the companys' submittal of a U.S. EPA Notification of Hazardous Waste Site form (Form 103[c]). The site was evaluated in July 1984 with the completion of a Preliminary Assessment by IEPA. On September 27, 1988, Ecology and Environment conducted a Screening Site Inspection (SSI) of the B.F. Goodrich facility. A site reconnaissance inspection noted that the site is located in a remote rural setting with the process facility portion of the site entirely fenced including a security gate at the site entry point. During the SSI, collection of soil/sediment samples was conducted along the river bank upstream and downstream of the site. Groundwater sampling was conducted on and off-site. Elevated levels of n-nitrosodiphenylamine were detected in two soil/sediment samples adjacent to the site. Elevated levels of twelve PAH's were detected in the two upstream samples as well as Arsenic, Barium, Chromium, and Copper in the upstream sample located about five miles north of the site. However, all levels were below any removal action levels or MCL's. Groundwater samples were collected from one on-site drinking water well (west side of site), two on-site production wells (central and east portion of site), one off-site residential well (immediately across road south of site) and the City of Henry's public well #3 (1 1/2 miles south of the site). Analysis revealed various elevated VOC and semi-VOC constituent levels in the two production wells. No concentrations were above any removal action levels or MCL's.

POTENTIALLY IMPACTED TARGETS

On September 30, 1994, IEPA was tasked to perform a Site Inspection Prioritization (SIP) of The B.F. Goodrich Company site. The SIP was performed to fill in various information gaps which may have existed from previous CERCLA investigations. Prior to the initiation of the SIP, areas of concern were identified to be potential surface water exposure and nearby drinking water wells.

These areas of concern were identified prior to further investigation of how the indicated constituent levels compared to the RAL's and MCL's and prior to the receipt of the following additional information from B.F. Goodrich personnel. The site has and is involved in a self imposed

Were they using RAL's and MCL's criteria or the revised HRS??

cleanup and improvement program. The plant undergoes annual RCRA inspections conducted by IEPA's Peoria field personnel. In 1988, B.F. Goodrich began a plant improvement program and groundwater monitoring program. Approximately nine million dollars have been spent on plant improvements since 1988. These include plant production and general plant improvements, removing UST's, diking around storage tanks, the mentioned covering of the lagoons and landfill and installation of 21 groundwater monitor wells. Twelve wells are shallow (40'-50'), nine are deep (100'-120'). The SIP reconnaissance revealed a very well engineered and maintained cap with a thick cover of established, mowed grass covering the entire 12.7 acre area of former lagoons and landfill. There is no ponding, no leachate seeps or run-off channels visible and no refuse protruding at any point around the site. Plant personnel and their consultant presented the author with a package of monitor well analytical information gathered quarterly since their installation in 1988. Also supplied was information regarding lagoon construction. Early lagoons were not lined. These include three lagoons east of the production facility. All lagoons to the north of the production facility received clay liners of between one and one-half to three feet thick. Review of the groundwater quality information showed various chlorinated solvents, BTEX and BNA compounds in the wells. Review of this information also has shown that over time there is a general decrease in concentrations of compounds and a decrease in the number of wells with detectable concentrations of the compounds. The analytical data shows that degradation of chlorinated organics is occurring and that the groundwater system is attenuating and degrading the VOC's. A water table map, also provided, indicates groundwater flow direction to be west to east at the plant site, with the Illinois River acting as a groundwater recharge and discharge area. Also noted was that the residence south of the plant was sold to the City of Henry in 1993. Occupants no longer reside in this dwelling. The well is still available for use but has not been used regularly. It is considered a standby well. The well has never been found to be contaminated.

PRESENT ACTIVITIES

B.F. Goodrich is currently continuing the monitoring of the groundwater network and monitoring the covers over the lagoons and landfill for cap integrity and working toward further site improvements.